

SARAH K. FLOCK, NCARB, BECxP, CxA+BE

Principal



+CONTACT

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Sarah Flock has 18 years of architectural experience in water/moisture intrusion investigations, repair design, and field testing of distressed structures, nonperforming buildings, and material systems. She specializes in building enclosure assessment and in the resolution of moisture intrusion, including condensation formation. She has performed hygrothermal modeling to analyze a wide range of projects utilizing her knowledge and expertise in THERM, WUFI, and other types of computer analyses. She has evaluated and tested building materials and systems, including masonry, windows, curtain walls, metal panels, stucco, wood and vinyl cladding systems, and exterior insulation and finish systems (EIFS).

Her experience has involved architectural peer review of building enclosures and assemblies to ensure the designs meet codes and standards for energy efficiency and environmental performance. With her extensive building enclosure knowledge, she has provided litigation support and served as an expert witness on related failures.

Previously, she gained experience working at both an engineering firm and residential design practice in the areas of site investigations, code analysis, construction documents, and interactive graphics. She served as a teaching assistant for a construction and building technology course while working on her Master's degree at the University of Illinois at Urbana-Champaign.

■ EDUCATION

Master of Architecture: Management, 2001
 University of Illinois at Urbana-Champaign

Bachelor of Science in Architectural Studies, 1999
 University of Illinois at Urbana-Champaign

■ REGISTRATIONS | CERTIFICATIONS

Licensed Architect in Illinois, Iowa, South Carolina, and Wisconsin

National Council of Architectural Registration Boards (NCARB) Certificate Holder

Construction Documents Technologist (CDT)

Building Enclosure Commissioning Process Provider (BECxP)

Commissioning Authority + Building Enclosure (CxA+BE)

Certified Third-Party EIFS Inspector

Certified Simulator for U-Factor, Solar Heat Gain Coefficient, Visible Transmittance, and Condensation Resistance

Health Care Construction Certificate (HCC)

Completed courses in Advanced WUFI and ASHRAE training regarding energy compliance standards

■ PROFESSIONAL AFFILIATIONS

ASTM International
 Committee E06.55.09 Standard Practice for Building Enclosure Commissioning
 Committee E06.55.10 Building Commissioning Certifications and Training
 Committee E06.41 Moisture Modeling

Air Barrier Association of America (ABAA)
 Executive Committee, Second Vice Chair
 Co-Chair, Research Committee

American Institute of Architects (AIA)
 AIA Chicago and Illinois Chapters, Member

Building Enclosures Council-Chicago

American Society of Healthcare Engineering (ASHE)

Construction Specifications Institute (CSI)

Exterior Design Institute (EDI)

■ AWARDS

The Construction Specifier magazine
 Specifier Article of the Year Award, 2019

Air Barrier Association of America, Committee Chair Award, May 2018

International Institute of Building Enclosure Consultants (IIBEC), Richard M. Horowitz Award Winner
 Best Article in *Interface*, 2013

Precast/Prestressed Concrete Institute (PCI)
 Architectural Design Award Winner, 2002



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■ PUBLICATIONS

- "Put Penetrations to the Test: The Effect of Cladding Attachments on Air and Water Barriers," *The Construction Specifier*, S.K. Flock and A. Dunlap, July 2018 | Specifier Article of the Year Award Winner
- "Understanding Performance at Air, Water Barrier Penetrations," *Durability + Design News*, S.K. Flock and A. Dunlap, April 4, 2018
- "Understanding Heat, Air, and Moisture Control: The Gaps Between Design and Performance," *The Construction Specifier*, S.K. Flock and C.M. Ceja, May 2016
- "Inhibiting Condensation, Understanding Communication Between Spaces, Environment, and People," *Medical Construction & Design*, S.K. Flock and A.L. Baird, January/February 2016
- "Roof Design and Preconstruction Considerations for Heat, Air, and Vapor Control," *IIBEC Interface, Technical Journal of IIBEC*, S.K. Flock and G.D. Hall, September 2012
- "Interior Metal Components and the Thermal Performance of Window Frames," *Journal of Testing and Evaluation*, Vol. 39, No. 3, S.K. Flock and G.D. Hall, ASTM International, West Conshohocken, PA, May 2011
- "The Complexities of Specifying and Detailing Air Barrier Systems," *The Construction Specifier*, S.K. Flock and G.D. Hall, April 2011
- "In Situ Moisture Testing of Building Products as a Predictor of Actual Conditions," *Proceedings of the BEST1 Conference*, G.D. Hall and S.K. Flock, June 10, 2008
- "Installation Details and Condensation Performance", RRJ *Insight* Issue No. 23, R.J. Kudder, D.K. Johnson, and S.K. Flock, August 2006
- "Importance of Condensation Control in Cold Climate Wall Assemblies", RRJ *Insight* Issue No. 23, R.J. Kudder, D.K. Johnson, and S.K. Flock, August 2006
- "Effect of Installation Details on the Condensation Performance of Window Frames," Committee on Performance and Durability of Window-Walls Interface, ASTM STP 1484, R.J. Kudder, S.K. Babich (Flock) and D.K. Johnson, ASTM International, West Conshohocken, PA, 2004

■ PRESENTATIONS

- "Pull Adhesion Test Method" Workshop and "Affecting Air and Water Barrier Effectiveness; Fixing the Fasteners?" presentation, 2019 ASHRAE Buildings XIV International Conference, Clearwater Beach, FL, December 8-9, 2019
- "Updates on Air Barrier Association of America (ABAA) Research Initiatives and Impacts on Specifications of AWBs," CSI Chicago Chapter Meeting, Chicago, IL, November 19, 2019
- "Building Enclosure Design and Repair Considerations for Healthcare Facilities," Midwest Healthcare Engineering Conference, Indianapolis, IN, S.K. Flock and P.E. Reicher, November 12, 2019
- "Put Penetrations to the Test: A Review of the History, Current Trends and Research for Attachments with WRBs," CSI Chicago Chapter Roundtable Discussion, Chicago, IL, May 8, 2019
- "Patient Comfort in Health Care Facilities: Building Enclosure Design and Repair Considerations," HESNI Annual Conference, Naperville, IL, P.E. Reicher and S.K. Flock, May 3, 2019
- "Research of Air/Water Leakage Fasteners Through the Air Barriers," Air Barrier Association of America Conference & Trade Show, Norfolk, VA, S.K. Flock and A. Dunlap, March 26, 2019



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■ PRESENTATIONS

- "Field Quality Assurance Testing for Air Barriers," a joint event of the Air Barrier Association of America, International Masonry Institute, and Building Enclosure Council-Chicago, Addison, IL, P.E. Reicher and S.K. Flock, October 18, 2018
- "Window Condensation Problems: Why Now?" IIBEC Chicago Area Chapter, Annual Meeting & Program, Oak Brook, IL S.K. Flock and R.J. Kudder, January 17, 2018
- "Top 15 Hot Button Roofing Issues," IIBEC Chicago Area Chapter, Fall Meeting & Program, Glen Ellyn, IL, C.M. Ceja, P.E. Reicher, S.K. Flock, and A.L. Baird, November 10, 2017
- "Top 15 Hot Button Roofing Issues and Why Every General Contractor Should Know About Them," American Contractors Insurance Group (ACIG), Risk Management Workshop, Barrington, IL, C.M. Ceja, P.E. Reicher, S.K. Flock and A.L. Baird, October 12, 2017
- "Building and Envelope Commissioning Challenges and Solutions for Construction Projects," Construction Owners Association of America, Illinois Chapter, Spring Workshop, Chicago, IL, Panelist, April 12, 2017
- "Measuring Water Resistance, Test Methods and Conditions of Acceptance," Buildings XII Conference, Clearwater Beach, FL, December 4, 2016
- "Roof / Wall Considerations for Heat, Air, and Moisture Control," IIBEC Chicago Area Chapter, Annual Meeting & Program, Oak Brook, IL, S.K. Flock and C.M. Ceja, January 20, 2016
- "Thermal Bridging and Moisture Control in Building Enclosures," Association of Licensed Architects (ALA), Educational Program, Glenview, IL, K.M. Lies, S.K. Flock, and R.J. Kudder, March 31, 2015
- "Roof Design and Preconstruction Considerations for Heat, Air, and Vapor Control," Building Enclosure Council of Chicago," Chicago, IL, S.K. Flock and G.D. Hall, January 2013
- "The Construction Expert's Toolbox," Society of Illinois Construction Attorneys, Ethics for Legal Counsel and Neutrals and the ADR Process, Chicago, IL, K.R. Hoigard and S.K. Flock, April 16, 2013
- "Interior Metal Components and the Thermal Performance of Window Frames," ASTM International Symposium, San Antonio, TX, S.K. Flock and G.D. Hall, October 2010
- "A Review of Moisture Migration and Heat Transfer in Buildings," Association of Licensed Architects (ALA), Architecture Conference and Product Show, Oakbrook Terrace, IL, G.D. Hall and S.K. Flock, 2009
- "Design Considerations for the Prevention of Condensation Formation," The Construction Specifications Institute, Chicago Chapter Roundtable, Chicago, IL, G.D. Hall and S.K. Flock, September 10, 2008
- "In Situ Moisture Testing of Building Products as a Predictor of Actual Conditions," BEST1 Conference, Minneapolis, MN, G.D. Hall and S.K. Flock, June 10, 2008
- "What is WUFI?" CSI Chicago Chapter Roundtable Discussion, Chicago, IL, G.D. Hall and S.K. Flock, April 12, 2006
- "Effects of Installation Details on the Condensation Performance of Window Frames," Committee on Performance and Durability of Window-Walls Interface, ASTM International Symposium, Salt Lake City, UT, April 18, 2004